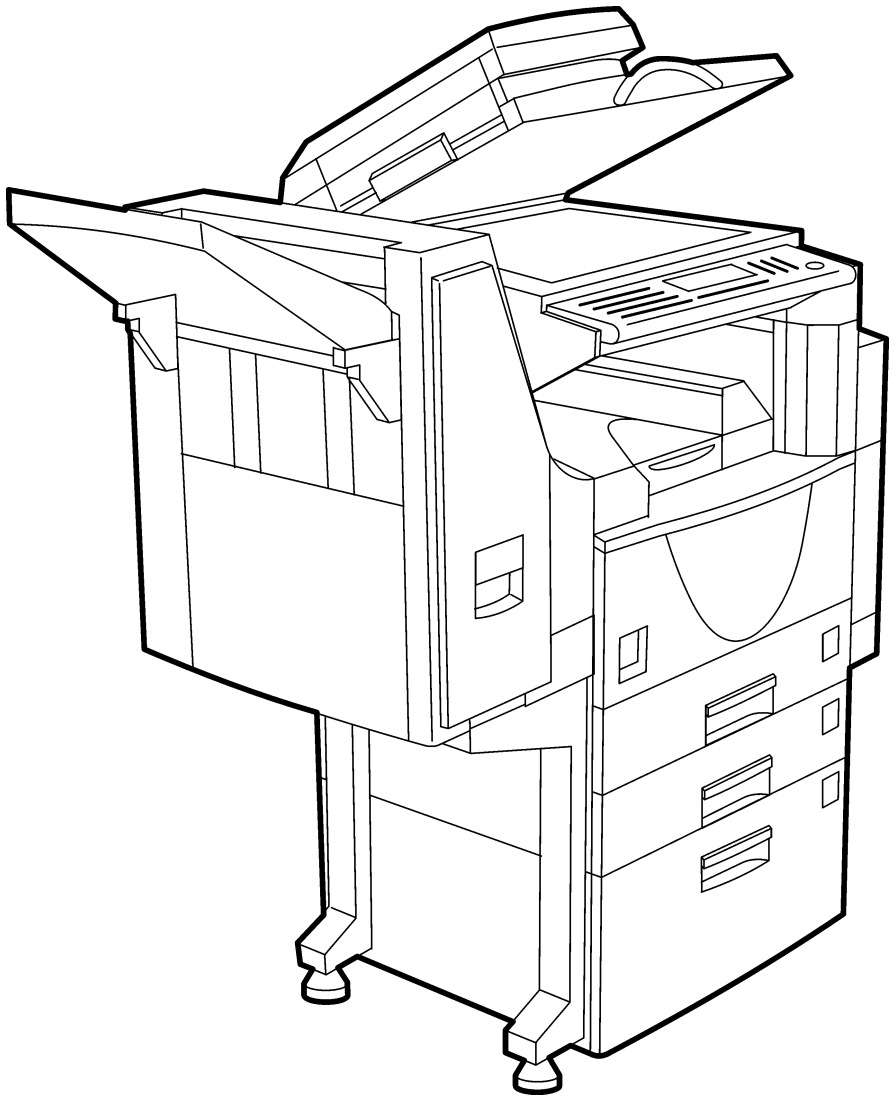
LANIER

Operator Guide

5222/5227



Network Interface

next level document solutions

When ordering supplies or requesting service for your copier, you will need to provide the model and serial number of your machine.

Please take a moment to enter your model and serial numbers here.

MODEL NUMBER: _____

SERIAL NUMBER: _____

To order supplies, call: ( )

To request service, call: ( )

Customer Vision® -
Our commitment to your
complete satisfaction

Important:

Please read and understand this manual prior to using it. Pay special attention to the Safety Information. Parts of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

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 November
Printed in the U.S.A.

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Chapter 1

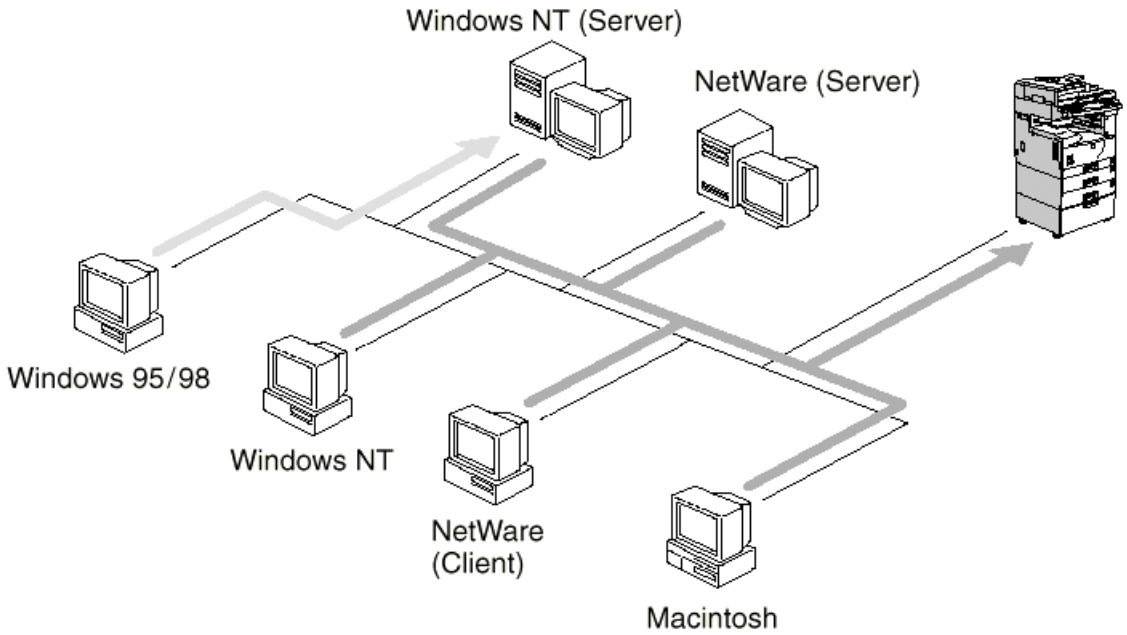
Introduction

Chapter Overview

This Chapter covers:

Introduction

This manual contains detailed instructions on configuring your printer for using as a network printer. The actual procedures may differ depending on your network environment. Use the procedures for your network environment.



Note: The procedures written in this manual assume that you are a network administrator. Be sure to consult your network administrator before doing any configuration.

Note: Refer to the manual that comes with the printer for information on physically installing the Network Interface Board and cabling.

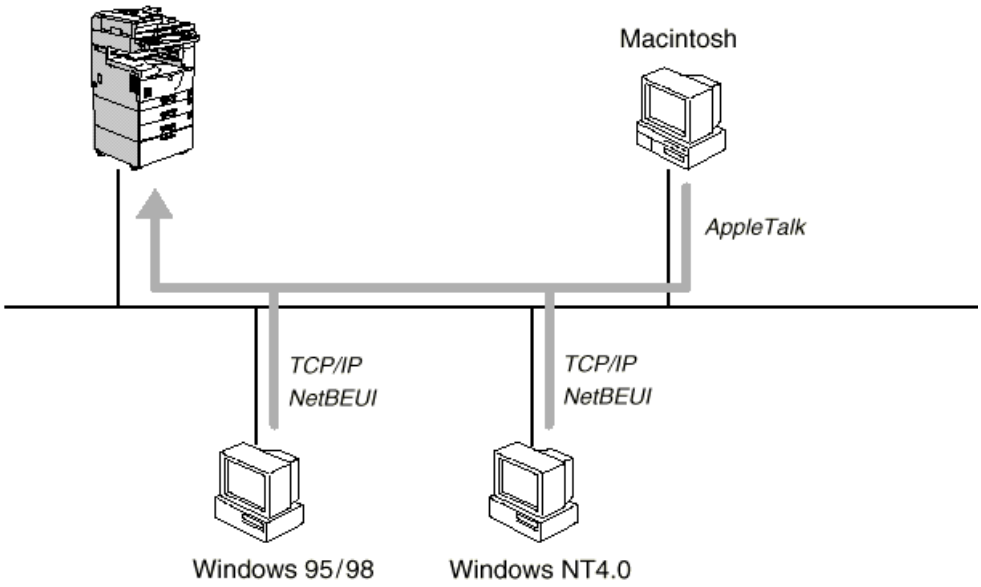
Features

- Support for 100BASE-TX and 10BASE-T
- The Network Interface Board is compatible with NetWare (IPX/SPX), Windows NT (TCP/IP, NetBEUI), Windows 95/98 (TCP/IP, NetBEUI),and Macintosh (AppleTalk) protocols. This allows you to use the printer in a network that uses different protocols and operating systems.
- A computer used as a dedicated print server is not required, because the Network Interface Board can be configured as a NetWare print server.
- The Network Interface Board can connect the printer to the network without requiring its own power supply as the Network Interface Board is installed inside the printer.

Setting Up the Printer in a Network

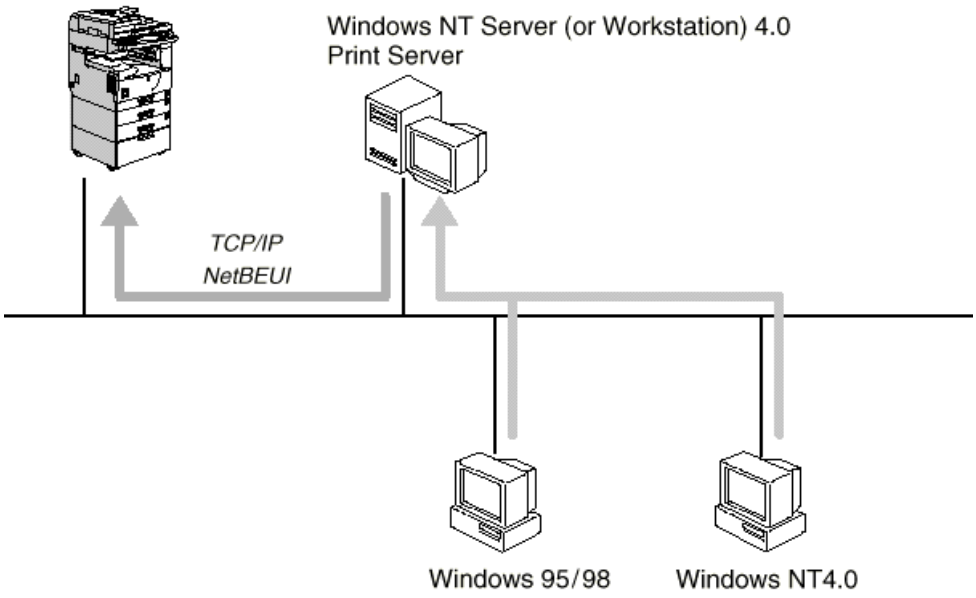
Printing without Using a Print Server

You do not have to use a print server. The actual procedure differs depending on your operating system.



Printing with a Windows NT Server

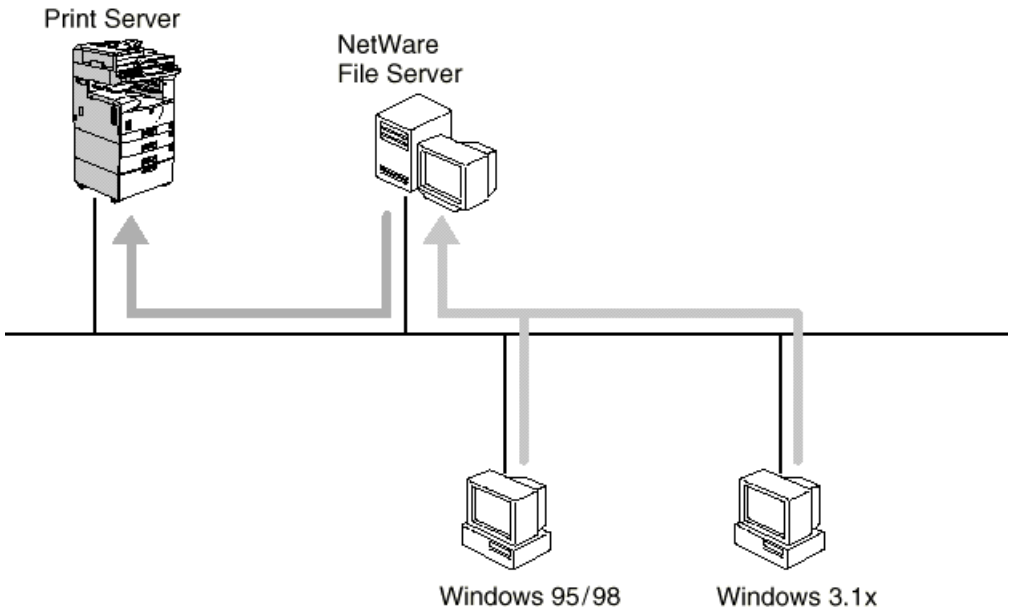
When Windows NT Server or Workstation is the operating system being used on the print server, TCP/IP or NetBEUI protocols are used.



Note: For instructions on setting up TCP/IP or NetBEUI in a Windows NT environment, refer to Chapter 3.

Printing as a NetWare Print Server

The Network Interface Board allows you to set up your printer in a NetWare environment as a print server or a remote printer. A dedicated NetWare print server is not required. If a dedicated print server is being used, you should configure your printer as a remote printer.



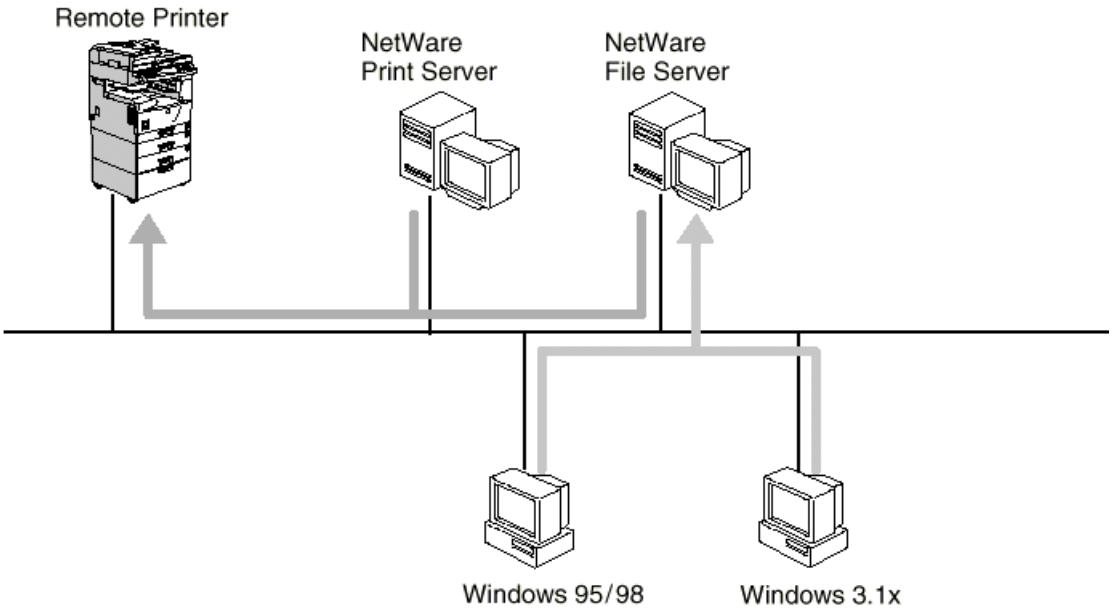
The actual procedures for configuring your printer may differ depending on the version of NetWare.

- NetWare 3.x
- NetWare 4.x,

The actual procedures for configuring your client computer may differ depending on the operating system.

- Windows 95/98
- Windows 3.1x

Configure as Remote Printer



The actual procedures for configuring your printer may differ depending on the version of NetWare.

- NetWare 3.x
- NetWare 4.x, 5

The actual procedures for configuring your client computer may differ depending on the operating system.

- Windows 95/98
- Windows 3.1

Notes:

Chapter 2

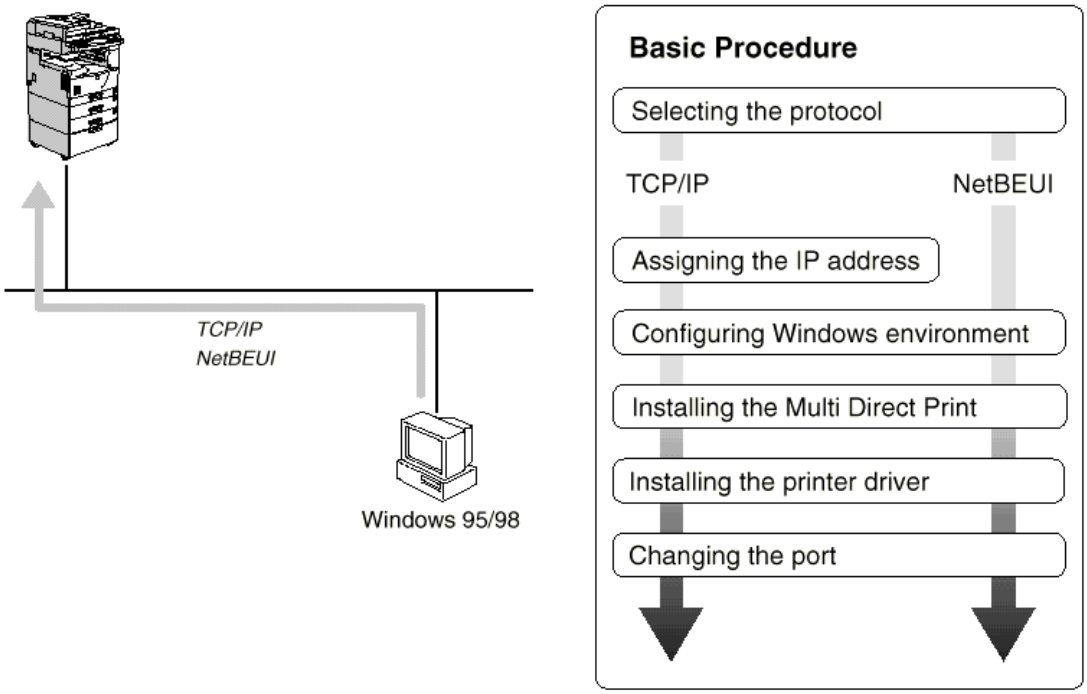
Windows 95/98 Configuration

Chapter Overview

This chapter covers:

Configuring Windows 95/98

You can use your printer as a network printer with Windows 95 and Windows 98 using the Multi Direct Print application, and TCP/IP or NetBEUI protocols. This chapter explains how to configure your printer and Windows.



The Multi Direct Print Application supports the TCP/IP protocol and the NetBEUI protocol. Consult your network administrator before selecting the protocol.

Limitation

When you use the NetBEUI protocol, you cannot print to a printer which is located on the other side of a router.

> Note: You can use both TCP/IP and NetBEUI protocols in a computer. To use both protocols you must first install them.

Preparing to Use the TCP/IP Protocol for Printing

To use the TCP/IP protocol to print, the network must be configured as described below.

Configuring the Printer

Configure your printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

For more information on how to make the above settings, refer to the Operator Guide for your printer.

Note: After setting the IP address, use the PING command to confirm that it has been set correctly.

1. Click [Start], point to [Programs], and then click [MS-DOS Prompt].
2. Enter the following. (Example IP address is 192.168.15.16) C:> ping 192.168.15.16

If the address has been configured correctly, the following message appears.

Reply from 192.168.15.16: bytes=32 time<10ms TTL=32

If the address has been configured incorrectly, the following message appears.

Request timed out.

Configuring a Windows 95/98 Computer

Follow these steps to configure a Windows 95/98 computer to use the TCP/IP protocol.

1 Double-click the [Network] icon of [Control Panel], and confirm that “TCP/IP” is in the [The following network components are installed] box of [Configuration] tab.

- If TCP/IP is not installed, click [Add] of [Configuration] tab, and install it.

2 Configure the TCP/IP protocols with the appropriate IP address, subnet mask and other settings.

- Confirm with your network administrator that the settings are correct.

Preparing to Use the NetBEUI Protocol for Printing

To use the NetBEUI protocol to print, the network must be configured as described below.

Configuring the Printer

Configure your printer to use the NetBEUI protocol.

- Confirm that the NetBEUI protocol is set to be active. (The factory default is active.)

For more information on how to make the above settings, refer to the Operator Guide for your printer.

Configuring a Windows 95/98 Computer

Install the NetBEUI protocol into a Windows 95/98 computer, and configure NetBEUI as the default protocol.

1. Double-click the [Network] icon in the [Control Panel], and confirm that “NetBEUI” is in the [The following network components are installed] list of [Configuration] tab.
   - If NetBEUI is not installed, click [Add] of [Configuration] tab, and install it.
2. Configure the NetBEUI protocol as the default protocol. Click the [Configuration] tab, select “NetBEUI” in the [The following network components are installed] list, and click [Properties]
3. Click the [Advanced] tab, select [Set this protocol to be the default protocol], and click [OK].
4. Click [OK] to close the [Network] dialog.
5. After confirming the message to restart, click [Yes].

Installing the Multi Direct Print Application

Follow these instructions to install Multi Direct Print.

Preparation:

You must restart the computer after installing Multi Direct Print. Be sure to close all applications before beginning the installation process.

> Note: You must install Multi Direct Print and the appropriate printer driver in order to print. If you print, using the TCP/IP protocol, to be able to browse the printer via the network, PRINTER MANAGER FOR CLIENT needs to be installed. If the installer starts automatically with the AutoRun program, you can install both of these programs. For more information on how to install these programs, refer to the Operator Guide for your printer.

1 Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive.

- If the installer starts automatically, you can use it to install Multi Direct Print, and set up the printer driver, and then go to procedure 6.

2 Open [Control Panel], and double click the [Add/Remove Programs] icon.

3 In the [Install/Uninstall] tab, click [Install].

4 Click [Next >].

5 Enter the name of the CD-ROM drive in the [Command line for installation pro-gram] box, followed by ":\NETWORK\MDP\DISK1\SETUP" (do not include the quotation marks), and then click [Finish].

> Note: An example would be "D:\NETWORK\MDP\DISK1\SETUP" when the drive letter is "D".

6 After the [Welcome] dialog appears, click [Next >].

7 After the [Setup Complete] dialog appears, click [Yes, I want to restart my computer now.], and click [Finish].

- The computer restarts, and Multi Direct Print can now be used. If you select "No", be sure to restart the computer manually before starting Multi Direct Print for the first time.

Setting Up the Printer Driver

Using Multi Direct Print to print is not possible until the printer driver is in-stalled and the correct port selected.

Preparation:

The target printer must be turned on before starting the installation process.

1 Install the printer drivers.

- If the printer drivers have already been installed, you can proceed to the next step.
- Any port can be selected during the installation, however, LPT1 is recommended.

2 In the [Printers] window, highlight the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].

3 Click the [Details] tab, and then click [Add Port].

4 In the [Add Port] box, click [Other], and select [LAINER Multi Direct Print] by clicking it, and then click [OK]

- The [Select Printer] dialog appears, and the printers which can print with TCP/IP are displayed.
- Limitation:
  If PRINTER MANAGER FOR CLIENT is not installed in your computer, printers which can print with TCP/IP are not displayed.
- The printers which have replied to a broadcast from the computer are listed here. To print to a printer that is not on this list, or to directly enter the port name, highlight **[New Printer]** by clicking it, and click **[Next >]**, and then enter the port name with procedure **7**.

5 To print using the NetBEUI protocol, click [NetBEUI].

6 Select the printer you want to use by clicking it, and click [Next >].

- You can identify the “Printer Name” and “Address” on the “configuration page” printed by the printer.

7 Confirm that the Port name of the printer is correct, and click [Next >].

- If you did not select a printer with procedure 6, you must enter the Port name.

Inputting Port Name for use with TCP/IP Protocol

Enter the IP address of the Network Interface Board into the [IP address] box.

- You can enter the host name or a domain name instead of an IP address into the [Host Name] box.
- Limitation: You cannot use a host name that begins with “%%”.
- When you use DHCP to assign IP addresses to Network Interface Boards, you can use a printer name (Current Host name on the network configuration page) as the host name.

Inputting Port Name for use with NetBEUI Protocol

Print a configuration page, and confirm the Network path name.

- For information on printing a configuration page, refer to the Operator Guide for your printer.

Enter the printer's Network path name in form of “%%Computer name \Share name”. Do not enter “\\” as head characters but “%%”.

8 Confirm the port name in the [Port Name] box, and click [Finish].

9 In the [Printer Ports] dialog, click [Close].

10 Confirm that the port name is displayed in the [Print to the following port(s)] box and ' mark is inside the check box. Then click [OK].

- Configuration is complete.
- When you print, the printing procedure is no different. When you select the printer configured here, the computer automatically uses Multi Direct Print.

Uninstalling the Multi Direct Print Application

1 Open [Control Panel], and double click the [Add/Remove Programs] icon.

2 With [Install/Uninstall] tab, select [Lanier Multi Direct Print] by clicking it, and click [Add/Remove].

3 After a confirmation message appears, click [Yes].

- UninstallShield removes all of the components of the Multi Direct Print application.

4 When the uninstallation is complete, restart your computer.

Chapter 3

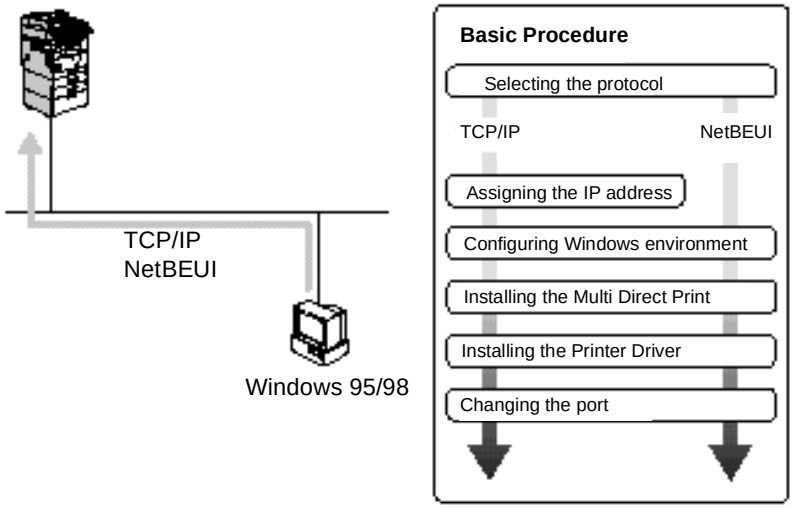
Windows NT 4.0 Configuration

Chapter Overview

This Chapter covers:

Preparing for a Network Connection

You can use your printer as a network printer with Windows NT 4.0 using the Multi Direct Print application, and TCP/IP or NetBEUI protocols. This chapter explains how to configure your printer and Windows NT.



Preparation: The Multi Direct Print Application supports the TCP/IP protocol and the NetBEUI protocol. Consult with your network administrator before selecting the protocol.

Limitation: When you use the NetBEUI protocol, you cannot print to a printer which is located on the other side of a router.

> Note: You can use both TCP/IP and NetBEUI protocols in a computer. To use both protocols you must first install them.

Preparing to Use the TCP/IP Protocol for Printing

Follow these instructions to configure the Network Interface Board and Windows NT to use the TCP/IP protocol.

Configuring the Printer

Configure your printer to use the TCP/IP protocol.

- Confirm that the TCP/IP protocol is set to be active. (The factory default is active)
- Assign an IP address and make other settings required for using the TCP/IP protocol.

After setting the IP address, use the PING command to confirm that it has been set correctly.

1. Click [Start], point to [Programs], and then click [Command Prompt].
2. Enter the following. (Example IP address is 192.168.15.16) C:> ping 192.168.15.16

If the address has been configured correctly, the following message appears.
Reply from 192.168.15.16: bytes=32 time<10ms TTL=32

If the address has been configured incorrectly, the following message appears.
Request timed out.____

Configuring a Windows NT Computer

Follow these steps to configure a Windows NT to use the TCP/IP protocol.

1 Double-click the [Network] icon of [Control Panel], and confirm that “TCP/IP Protocol” is in the [Network protocols] box of the [Protocols] tab.

- If the TCP/IP protocol is not installed, click [Add] in the [Protocols] tab, and install it.

2 Configure the TCP/IP protocols with the appropriate IP address, subnet mask and other settings.

- Confirm with the network administrator that the settings are correct.

3 Click the [Services] tab, and confirm that the “Microsoft TCP/IP Printing” is installed.

- If “Microsoft TCP/IP Printing” is not installed, click [Add] in the [Services] tab, and install it. For additional help in installing and configuring network services, refer to the Windows NT online help.

Preparing to Use the NetBEUI Protocol for Printing

Follow these instructions to configure the Network Interface Board and Windows NT to use the NetBEUI protocol.

Configuring the Printer

Configure your printer to use the NetBEUI protocol.

- Confirm that the NetBEUI protocol is set to be active. (The factory default is active.)

Configuring a Windows NT Computer

Install the NetBEUI protocol into a Windows NT computer, and enter the LAN adapter number (Lana Number).

1. Double-click the [Network] icon in the [Control Panel], and confirm that “Net-BEUI Protocol” is in the [Network protocols] box of the [Protocols] tab.
   - If the NetBEUI protocol is not installed, click [Add] in the [Protocols] tab, and install it. For more information, refer to the Windows NT online help.
2. Change the Lana Number. Click the [Services] tab, select the [NetBIOS interface] of the [Network Services] box, and click [Properties].
3. Select the Lana Number corresponding [Nbf protocol] of the [Network route] headline, and click [Edit].
4. Enter “0” as the Lana Number.
   - If the other protocol's Lana Number is configured with “0”, you must change the Lana Number with a number other than “0”.
5. Click [OK].
6. Click [close], and close the [Network] dialog.
7. After confirming the message for restart, click [Yes].
   - When you change the Lana Number, You must restart your computer.

Installing the Multi Direct Print Application

Follow these instructions to install Multi Direct Print.

- You must restart your computer after installing Multi Direct Print. Be sure to close all applications before beginning the installation process.
- You must install Multi Direct Print and the appropriate printer driver in order to print. If you print, using the TCP/IP protocol, to be able to browse the printer via the network, PRINTER MANAGER FOR CLIENT needs to be installed. If the installer starts automatically with the AutoRun program, you can install both of these programs.
- To install this software you must be logged on as a member of the Administrators group.

1 Insert the CD-ROM that comes with your printer into your computer's CD-ROM drive.

- If the installer starts automatically, you can use it to install Multi Direct Print, and set up the printer driver, and then go to step 6.

2 Open [Control Panel], and double click the [Add/Remove Programs] icon.

3 In the [Install/Uninstall] tab, click [Install].

4 Click [Next >].

5 Enter the name of the CD-ROM drive in the [Command line for installation pro-gram] box, followed by ":\NETWORK\MDP\DISK1\SETUP" (do not include the quotation marks), and then click [Finish].

- An example would be "D:\NETWORK\MDP\DISK1\SETUP" when the drive letter is "D".

6 After the [Welcome] dialog appears, click [Next >].

7 After the [Setup Complete] dialog appears, click [Yes, I want to restart my computer now.], and click [Finish].

- The computer restarts, and Multi Direct Print can now be used. If you select "No", be sure to restart your computer manually before starting Multi Direct Print for the first time.

Setting Up the Printer Driver

Using Multi Direct Print to print is not possible until the printer driver is installed and the correct port is selected.

- The target printer must be turned on before starting the installation process.

1 Install the printer drivers.

- If the printer drivers have already been installed, you can proceed to the next step.
- Any port can be selected during the installation, however, LPT1 is recommended.

2 In the [Printers] window, highlight the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].

3 Click the [Ports] tab, and click [Add Port].

4 In the [Available Printer Ports] box, highlight [LANIER Multi Direct Print] by clicking it, and then click [New Port]. The [Select Printer] dialog appears, and the printers which can print with TCP/IP are displayed.

- If PRINTER MANAGER FOR CLIENT is not installed in your computer, printers which can print with TCP/IP are not displayed.
- The printers which have replied to a broadcast from the computer are listed here. To print to a printer that is not on this list, or to directly enter the port name, highlight [New Printer] by clicking it, and click [Next >]. Then, enter the port name with procedure 7.

5 To print using the NetBEUI protocol, click [NetBEUI].

6 Select the printer you want to use by clicking it, and click [Next >].

- You can identify the “Printer Name” and “Address” on the “configuration page” printed by the printer.

7 Confirm that the Port name of the printer is correct, and click [Next >].

- If you did not select a printer with Step 6, you must enter the Port name.

Inputting the Port Name for use with the TCP/IP Protocol

Enter the IP address of the Network Interface Board into the [IP address] box.

- You can enter the host name or a domain name instead of an IP address into the [Host Name] box.
- You cannot use a host name that begins with “%%”.
- When you use DHCP to assign IP addresses to Network Interface Boards, you can use a printer name (Current Host name on the network configuration page) as the host name.

Inputting the Port Name for use with the NetBEUI Protocol

Print a configuration page, and confirm the Network path name.

- For information on printing a configuration page, refer to the Operator Guide for your printer.

Enter the printer's Network path name in form of “%%Computer name \Share name**”.** Do not enter “\\” as head characters but “%%”.

8 Confirm the port name in the [Port Name] box, and click [Finish].

9 In the [Printer Ports] dialog, click [Close].

10 Confirm that the port name is displayed in the [Print to the following port(s)] box and ' mark is inside the check box. Then click [OK].

- Configuration is complete.
- When you print, the printing procedure is no different. When you select the printer configured here, the computer automatically uses Multi Direct Print.

Unistalling the Multi Direct Print Application

1 Open [Control Panel], and double click the [Add/Remove Programs] icon.

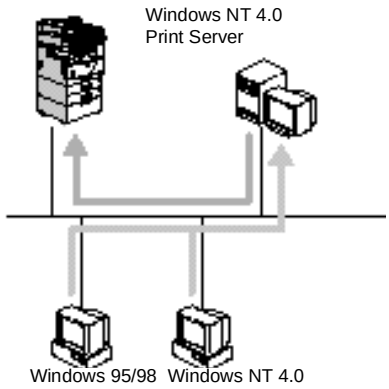
2 In the [Install/Uninstall] tab, select the [RICOH Multi Direct Print] by clicking it, and click [Add/Remove].

3 After a confirmation message appears, click [Yes]. UninstallShield removes all of the components of the Multi Direct Print application.

4 When the uninstallation is complete, restart your computer.

Setting Up a Client Computer

This section describes the procedures for setting up a client in a network that uses Windows NT Server or Windows NT Workstation as a print server.



Explanation of this section assumes that the client has already been configured to communicate with a Windows NT print server. Do not proceed with the following instructions until the client has been set up and configured correctly.

Windows 95/98

To print from Windows 95/98, you must install the printer driver and change the printer port to the print server.

1 Install the printer driver as a local printer.

- Any port can be selected during the installation, however, LPT1 is recommended.

2 Click [Start], point to [Settings], and then click [Printers].

3 Select the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].

4 Click the [Details] tab, then click [Add Port].

5 Click [Network], then click [Browse].

6 On the network tree, double-click the name of the computer used as the print server.

- The printers attached to the network are displayed.

7 Select the name of the printer you want to use by clicking it, then click [OK].

8 Click [OK].

9 Confirm that the port name is displayed in the [Print to the following port] box, then click [OK].

Windows NT 4.0

Use the [Printers] window to set up the printer.

1 Click [Start], point to [Settings], and then click [Printers].

2 Double-click the [Add Printer] icon.

- This launches the Add Printer Wizard.

3 Click [Network printer server], and click [Next >].

4 In the [Shared Printers] box, double-click the name of the computer used as a print server.

- The printers attached to the network are displayed.

5 Highlight the printer you want to use by clicking it, and click [OK].

- If the printer driver is not installed in the print server, a message appears. If a driver has been installed on the client, click [OK], and follow the instructions on the screen.
- There is a Windows NT printer driver in the CD-ROM that comes with the printer.

6 Select whether you use this printer as the default printer, and click [Next >].

7 After installation is complete, click [Finish].

- The icon of the newly installed printer appears in the [Printers] window.

Configuring LPR Port Printing

This section explains the procedure for printing to a LPR port from Windows NT.

- The TCP/IP protocols must be installed and configured correctly.
- The following instructions assume that the printer drivers have already been installed.
- This is a procedure to change the printer port to LPR.

1 Click [Start], point to [Settings], and then click [Printers].

2 Select the icon of the printer you want to use by clicking it. On the [File] menu, click [Properties].

3 Click the [Ports] tab, then click [Add Port].

4 In the [Available Printer Ports] box, select [LPR Port] by clicking it, and then click [New Port].

- If “LPR Port” does not appear, “Microsoft TCP/IP Printing” has not been installed.

5 Enter the IP address of the Network Interface Board into the [Name or address of server providing lpd] box.

6 Enter “lp” into the [Name of printer or print queue on that server] box, and click [OK].

7 Click [Close].

8 Confirm that the port name is displayed in the [print to the following port(s)] box and the ' mark is inside the check box. Then click [OK].

Notes:

Chapter 4

NetWare Configuration

Chapter Overview

This Chapter covers:

Installing the NIC Setup Tool

This chapter describes how to configure your printer to use as a print server or a remote printer in a NetWare environment.

NetWare must be set to active using the operation panel of your printer. For information on how to set it, refer to the Operator Guide for your printer.

A utility called the NIC Setup Tool is provided to configure your printer to work in a NetWare environment. Installing the PRINTER MANAGER FOR ADMINISTRATOR, and how to run the NIC Setup Tool on your computer. This section describes how to install the PRINTER MANAGER FOR ADMINISTRATOR, and how to run the NIC Setup Tool.

Limitations:

- NetWare 3.x, 4.x or 5 must be functional to run the NIC Setup Tool.
- The NIC Setup Tool is supported to work with the following operation systems.
  Microsoft Windows 95/98
  Microsoft Windows NT 4.0

Installing the PRINTER MANAGER FOR ADMINISTRATOR

Follow these steps to install the PRINTER MANAGER FOR ADMINISTRATOR.

You should install the PRINTER MANAGER FOR ADMINISTRATOR on your computer. If you install it on a file server and execute it via the network, it might not work correctly. Be sure to close all applications before starting the installation procedure.

1 Insert the CD-ROM that comes with your printer into your computer's CD-ROM drive.

Note: If the installer starts automatically, you can use it to install the PRINTER MANAGER FOR ADMINISTRATOR, and go to procedure 6.

2 Open [Control Panel], and double click the [Add/Remove Programs] icon.

3 In the [Install/Uninstall] tab, click [Install].

4 Click [Next].

5 Enter the name of the CD-ROM drive in the [command line for installation program] box, followed by “\NETWORK\PRINTMAN\AD-MIN\ DISK1\SETUP” (do not include the quotation marks) and then click “Finish”.

Note: An example would be “D:\NETWORK\PRINTMAN\AD-MIN\ DISK1\SETUP” when the drive name is “D”.

6 After the [Welcome] dialog appears, click [Next].

7 The Software License Agreement appears. After reading through all of the contents by clicking [PageDown], click [Yes] to agree with the License Agreement.

8 Select a directory in which it is to be installed, and click [Next].

- If you change the displayed directory, click [Browse] to select another one.
- The installation program starts.
- After the confirmation dialog appears, the installation program is complete.

Running the NIC Setup Tool

1 Click [Start], point to [Programs],

2 Then click [NIC Setup Tool] in the [NIC Set-up Tool] program.

Quick Setup Using the NIC Setup Tool Wizard

Using the NIC Setup Tool, you can easily set up a NetWare printing environment after physically installing the Network Interface Card into the printer. You can select [Wizard] or [Property Sheet] as an installation method. When you configure the Network Interface Card for the first time, use the Wizard method.

When the Wizard method is used, the Network Interface Card is configured to work as a Print Server. To configure it as a remote printer, use the Property Sheet method.

> Note: This section assumes that NetWare is functional and that the necessary environment for the NetWare Print Services is available.
>
> You should install the client software released from Novell on the Windows before running the NIC Setup Tool for configuring in NDS mode or using Windows NT 4.0.

1 Log in to the file server as an Admin or Admin equivalent.

2 Run the NIC Setup Tool.

3 Click [Wizard] and click [OK].

- The Browse dialog of the Network Interface Card appears.

4 Click [IPX protocol].

5 Select the IPX address of the Network Interface Card you are configuring by clicking it, and click [Next].

- If you do not know which Network Interface Card you are configuring, print the Configuration Page using the printer's operation panel, and select the MAC address that is on the page.

6 Confirm that the MAC and IPX addresses are correct, and click [Finish].

7 Enter the printer name into the [Device Name] box.

- The factory default is RNP followed by the last 6 digits of the MAC address. We recommend that you change it to something that is easier to remember or something based on the structure of your network.

8 Enter your comments in the [Comment] box, and click [Next].

- The enter comments are displayed with the device name when using a utility such as PRINTER MANAGER FOR ADMINISTRATOR.

9 In the dialog for selecting a network environment, place check mark for [Net-Ware] and remove check mark for the [TCP/IP].

10 Click [Next].

- A dialog for configuring the NetWare environment appears.

11 Select [Bindery Mode] when printing under the Bindery mode, or select [NDS Mode] when printing under the NDS mode.

- When you are using NetWare version 4.x, 5, you can select [NDS Mode].
- In case of configuring NDS Mode, if the [NDS Mode] is unable to be selected, you need to check the version of the client software released from Novell. We recommend that you install the latest version of the client software released from Novell.

12 In the [File Server Name] box, enter the name of the file server in which a print server is to be created.

- Clicking [Browse], you can select a file server among those listed in the Browse dialog.

13 If you selected [NDS Mode], enter the name of the NDS tree in which the print server is created into the [NDS Tree] box, and enter the context into the [NDS Context] box.

- Clicking [Browse], you can select a NDS tree and a NDS context among those listed in the Browse dialogs.
- As a context, object names are enter from a lower object and divided by a period. For example, if you want to create a file server into NETWORK under DS, enter “NETWORK.DS”.

14 Click [Next].

15 Enter the name of the print server you are creating on the NetWare environment into the [Print Server Name] box.

- The factory default name is already entered. You should change it if necessary.

16 Enter the name of the Printer into the [Printer Name] box, and the name of the Print Queue into the [Print Queue Name] box.

- The factory default for Printer Name is “Print Server Name” followed by “_1” and that for Print Queue Name is “Print Server Name” followed by “_Q”(quotation marks are not included). You should change them if necessary.

17 If you selected [NDS Mode], enter the volume of the print queue into the [Queue Volume] box.

- Clicking [Browse], you can select one of those shown in the Browse dialog.

18 Click [Next].

- A dialog to confirm the printing environment appears.

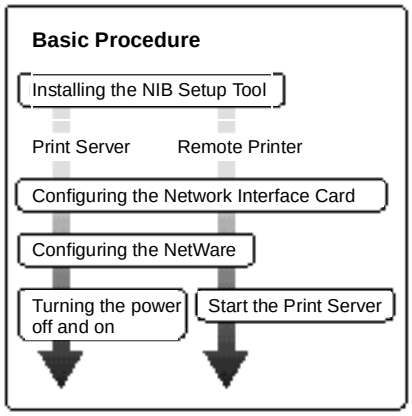
19 After confirming the environment, click [Next].

- If you want to change the settings, click [< Back] and make the settings again. Clicking [Next], the NIC Setup Tool automatically creates the Print Server, the Printer, and the Print Queue on NetWare.

20 After the confirmation dialog appears, select [Quit] and click [Finish] to exit the NIC Setup Tool.

Netware 3.x - Advanced Settings

The actual procedures for configuring your printer differ depending on whether the Network Interface Card is configured as a print server or as a remote printer. This section describes how to configure it in the NetWare 3.x environment.



Preparation

The following procedures use the Property Sheet method in configuring the Network Interface Card. If you configure the Network Interface Card as a NetWare print server for the first time after physically installing it, we recommend you use the Wizard method.

Note: This section assumes NetWare is functional and that the necessary environment for the NetWare Print Service is available.

Setting Up as Print Server

1 Log in to the file server as a Supervisor or a Supervisor equivalent.

2 Run the NIC Setup Tool.

3 Click [Property Sheet] and click [OK].

- The Browse dialog of the Network Interface Card appears.

4 Click [IPX protocol].

5 Select the IPX address of the Network Interface Card which is to be configured by clicking it, and click [Next].

Note: If you don't know which Network Interface Card you are configuring, print the Configuration Page using the printer's operation panel, and select the MAC address that is on the page.

6 Confirm that the MAC and IPX addresses are correct, and click [Finish].

- The [NIC Setup Tool] window appears.

7 Click [Configure].

- The property sheet appears.

8 Click the [NetWare] tab, and make the following settings.

- In the [Print Server Name] box, enter the name of the print server.
- In the [File Server Name] box, enter the name of the file server in which a print server is to be created. Click [Browse] to select a file server among those listed in the Browse dialog.
- In the [Print Server Operation Mode] group, click [As Print Server].
- Click [OK] to close the property sheet.
- After a confirmation dialog appears, click [OK].

9 In the [NIC] menu, click [Exit] to exit the NIC Setup Tool.

10 Enter “PCONSOLE” from the command prompt. F:> PCONSOLE

11 Create a print queue as follows.

- If you use a currently defined print queue, proceed to the step 12.
- In the [Available Options] menu, select [Print Queue Information].
- Press {Insert} and enter a print queue name.
- Press {Esc} to return to the [Available Options] menu.

12 Create a printer as follows.

- In the [Available Options] menu, select [Print Server Information].
- To create a new print server, press {Insert} and enter a print server name. If you use an currently defined print server, select one of the print servers shown in the [Print Server] list.

Important

- Use the same name as that specified in the NIC Setup Tool.
- In the [Print Server Information] menu, select [Print Server Configuration].
- In the [Print Server Configuration menu], select [Printer Configuration].
- Select the printer which is indicated as “Not Installed”.
- If you change the name of the printer, enter a new name.
- A name “Printer x” is assigned to the printer. x stands for the number of the selected printer.
- As Type, select [Remote Parallel, LPT1]. The IRQ, Buffer size, Starting form, and Queue service mode are automatically configured.
- Press {Esc}, and click [Yes] in the confirmation dialog.
- Press {Esc} to return to the [Print Server Configuration Menu].

13 Assign print queues to the created printer as follows.

- In the [Print Server Configuration Menu], select [Queues Serviced By Printer].
- Select the printer created in the Step 12.
- Press {Insert} to select a queue serviced by the printer. You can select more than one queue at a time.
- Follow the instructions on the screen to make other necessary settings.
- When you have finished the above steps, make sure that the queues are assigned.

14 Press {Esc} until “Exit?” appears, and select [Yes] to exit PCONSOLE.

15 Turn the printer power OFF and ON.

- To confirm if the printer is configured correctly, enter as follows from the command prompt. F:> USERLIST
- If the printer works as configured, the name of the print server appears as an attached user.

Setting Up as Remote Printer

1 Log in to the file server as a Supervisor or a Supervisor equivalent.

2 Run the NIC Setup Tool.

3 Click [Property Sheet] and click [OK].

- The Browse dialog of the Network Interface Card appears.

4 Click [IPX protocol].

5 Select the IPX address of the Network Interface Card which is to be configured by clicking

it, and click [Next].

- If you do not know which Network Interface Card you are configuring, print the Configuration Page using the printer's operation panel, and select the MAC address that is on the page.

6 Confirm that the MAC and IPX addresses are correct, and click [Finish].

- [NIC Setup Tool] window appears.

7 Click [Configure].

- The property sheet appears.

8 Click the [NetWare] tab, and make the following settings.

- In the [Print Server Name] box, enter the name of the print server.
- In the [File Server Name] box, enter the name of the file server in which a print server is to be created. Clicking [Browse], you can select a file server among those listed in the Browse dialog.
- In the [Print Server Operation Mode] group, click [As Remote Printer].
- In the [Remote Printer No.] box, enter the printer number. Important Use the same printer number as that to be created in the printer server.
- Click [OK] to close the property sheet.
- After a confirmation dialog appears, click [OK].

9 In the [NIC] menu, click [Exit] to exit the NIC Setup Tool.

10 Enter “PCONSOLE” from the command prompt. F:> PCONSOLE

11 Create a print queue as follows.

- If you use a currently defined print queue, proceed to the step 12.
- In the [Available Options] menu, select [Print Queue Information].
- Press {Insert} and enter a print queue name.
- Press {Esc} to return to the [Available Options] menu.

12 Create a printer as follows.

- In the [Available Options] menu, select [Print Server Information].
- To create a new print server, press {Insert} and enter a print server name. If you use an currently defined print server, select one of the print servers shown in the [Print Server] list. Use the same name as that specified in the NIC Setup Tool.
- In the [Print Server Information] menu, select [Print Server Configuration].
- In the [Print Server Configuration menu], select [Printer Configuration].
- Select the printer which is indicated as “Not Installed”. Use the same number as that specified as Remote Printer No. using the NIC Setup Tool.

- If you change the name of the printer, enter a new name. A name “Printer x” is assigned to the printer. x stands for the number of the selected printer.
- As Type, select [Remote Parallel, LPT1]. The IRQ, Buffer size, Starting form, and Queue service mode are automatically configured.
- Press {Esc}, and click [Yes] in the confirmation dialog.
- Press {Esc} to return to the [Print Server Configuration Menu].

13 Assign print queues to the created printer as follows.

- In the [Print Server Configuration Menu], select [Queues Serviced By Printer].
- Select the printer created in the Step 12.
- Press {Insert} to select a queue serviced by the printer. You can select more than one queue at a time.
- Follow the instructions on the screen to make other necessary settings. When you have finished the above steps, make sure that the queues are assigned.

14 Press {Esc} until “Exit?” appears, and Select [Yes] to exit PCONSOLE.

15 Start the print server by inputting as follows from the console of the NetWare Server.

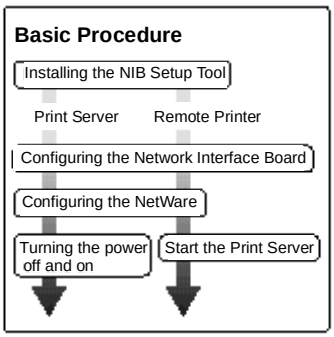
- If it is running, restart it after exiting it.
  To exit, CAREE: unload pserver
  To start, CAREE: load pserver print_server_name
- If the printer works as configured, “Waiting for job” appears.

Netware 4.x, 5- Advanced Settings

The actual procedures for configuring your printer differ depending on whether the Network Interface Card is configured as a print server or as a remote printer. This section describes how to configure it in the NetWare 4.x, 5 environment.

To use NetWare 5

- Load the IPX protocol into the file server in advance.
- You cannot use the NDPS (Novell Distributed Print Services) mode.



Preparation
The following procedures use the Property Sheet method in configuring the Network Interface Card. If you configure the Network Interface Card as a NetWare print server for the first time after physically installing it, we recommend you use the Wizard method.

This section assumes NetWare is functional and that the necessary environment for the NetWare Print Service is available. You should install the client software released from Novell on the Windows before running the NWAdmin.

Setting Up as Print Server

You can set up the print server using the NDS or Bindery mode in NetWare 4.x, 5. The following procedure is for setting up the print server using the NDS mode in NetWare 4.1. When you set up the print server using the Bindery mode, use the NIC Setup Tool Wizard.

1. Log in to the file server as an Admin or an Admin equivalent.
2. Run the NIC Setup Tool.
3. Click [Property Sheet] and click [OK].
   - The Browse dialog of the Network Interface Card appears.
4. Click [IPX protocol].

5 Select the IPX address of the Network Interface Card which is to be configured by clicking it, and click [Next].

Note: If you don't know which Network Interface Card you are configuring, print the Configuration Page using the printer's operation panel, and select the MAC address that is on the page.

6 Confirm that the MAC and IPX addresses are correct, and click [Finish].

- [NIC Setup Tool] window appears.

7 Click [Configure].

- The property sheet appears.

8 Click the [NetWare] tab, and make the following settings.

- In the [Print Server Name] box, enter the name of the print server.
- In the [File Server Name] box, enter the name of the file server in which a print server is to be created.Clicking [Browse], you can select a file server among those listed in the Browse dialog.
- In the [NDS Context] box, enter the context in which the print server is to be created. Clicking [Browse], you can select a context among those listed in the Browse dialog.
- Object names must be enter from a lower level and divided by a period. For example, if you want to create a file server into NETWORK under DS, enter “NETWORK. DS”.
- In the [Print Server Operation Mode] group, click [As Print Server].
- Click [OK] to close the property sheet.
- After a confirmation dialog appears, click [OK].

9 In the [NIC] menu, click [Exit] to exit the NIC Setup Tool.

10 From Windows, run NWAdmin.

- The actual NWAdmin programs differ depending on the version of it and that of the operating system. Run the NWADMIN.EXE except the following cases. When you are using the NetWare 4.11 or higher on Windows 3.1x, run the NWADMN3X.EXE. When you are using the IntranetWare on Windows95/98, run the NWADMN95.EXE. When you are using the Net-Ware 5, run the NWADMN32.EXE.
- The NWAdmin programs are located in the PUBLIC directory in the SYS volume. The NWADMN95.EXE is located in the PUBLIC\WIN95 directory.The NWADMN32.EXE is located in the PUBLIC\WIN32 directory.

- For more information on NWAdmin, see the documentation that comes with the NetWare.

11 Create a print queue as follows.

- Select the container object the print queue is located in among those in the directory tree, and click [Create] in the [Object] menu.
- In the [Class of new object] box, click “Print Queue” to highlight it, and click [OK].
- In the [Print Queue name] box, enter the name of the print queue.
- In the [Print Queue Volume] box, click Browse button.
- In the [Available objects] box, click the volume in which the print queue is created to highlight it, and click [OK].
- Select the volume on the file server specified in the NIC Setup Tool.
- After confirming the settings, click [Create].

12 Create a printer as follows.

- Select the container object the printer is located in, and click [Create] in the [Object] menu.
- In the [Class of new object] box, click “Printer” to highlight it, and click [OK]. When you are using the NetWare 5, click “Printer (Non NDPS)”.
- In the [Printer name] box, enter the name of the printer.
- Click [Define additional properties] to place ' mark, and click [Create].

13 Assign print queues to the created printer as follows.

- Click [Assignments], and click [Add] in the [Assignments] group.
- In the [Available objects] box, click the queue created in the step K to high-light it, and click [OK].
- Click [Configuration], and in the [Printer type] box, select [Parallel] using the drop-down menu, and then click [Communication].
- Click [Manual load] in the [Communication type] group, and click [OK].
- After confirming the settings, click [OK].

14 Create a print server as follows.

- Select the context specified using the NIC Setup Tool, and in the [Object] menu, click [Create].
- In the [Class of new object] box, click “Print Server” to highlight it, and click [OK]. When you are using the NetWare 5, click “Print Sever (Non NDPS)”.
- In the [Print Server name] box, enter the name of the print server.
- Use the same name as that specified using the NIC Setup Tool.
- Click [Define additional properties] to place ' mark, and click [Create].

15 Assign the printer to the created print server as follows.

- Click [Assignments], and click [Add] in the [Assignments] group.
- In the [Available objects] box, click the queue created in the step 11 to high-light it, and click [OK].
- After confirming the settings, click [OK].

16 Turn the printer power OFF and ON.

- To confirm if the printer is configured correctly, enter as follows from the command prompt. F:> NLIST USER /A/B
- If the printer works as configured, the name of the print server appears as an attached user.

Setting Up as Remote Printer

1 Log in to the file server as Admin.

2 Run the NIC Setup Tool.

3 Click [Property Sheet] and click [OK].

- The Browse dialog of the Network Interface Card appears.as follows.

4 Click [IPX protocol].

5 Select the IPX address of the Network Interface Card which is to be configured by clicking it, and click [Next].

- If you do not know which Network Interface Card you are configuring, print the Configuration Page using the printer's operation panel, and select the MAC address that is on the page.

6 Confirm that the MAC and IPX addresses are correct, and click [Finish].

- [NIC Setup Tool] window appears.

7 Click [Configure].

- The property sheet appears.

8 Click the [NetWare] tab, and make the following settings.

- In the [Print Server Name] box, enter the name of the print server.
- In the [File Server Name] box, enter the name of the file server in which a print server is to be created.

- Clicking [Browse], you can select a file server among those listed in the Browse dialog.
- In the [NDS Context] box, enter the context in which the print server is to be created.
- Clicking [Browse], you can select a context among those listed in the Browse dialog.
- Object names must be entered from a lower level and divided by a period. For example, if you want to create a file server into NETWORK under DS, enter “NETWORK. DS”.
- In the [Print Server Operation Mode] group, click [As Remote Printer].
- In the [Remote Printer No.] box, enter the number of the printer.
- Use the same number as that of the printer to be created in the print server.
- Click [OK] to close the property sheet.
- After a confirmation dialog appears, click [OK].

9 In the [NIC] menu, click [Exit] to exit the NIC Setup Tool.

10 From Windows, run NWAdmin.

- The actual NWAdmin programs differ depending on the version of it and that of the operating system. Run the NWADMIN.EXE except the following cases. When you are using the NetWare 4.11 or higher on Windows 3.1x, run the NWADMN3X.EXE. When you are using the IntranetWare on Windows95/98, run the NWADMN95.EXE. When you are using the Net-Ware 5, run the NWADMN32.EXE.
- The NWAdmin programs are located in the PUBLIC directory in the SYS volume. The NWADMN95.EXE is located in the PUBLIC\WIN95 directory. The NWADMN32.EXE is located in the PUBLIC\WIN32 directory.

11 Create a print queue as follows.

- Select the container object the print queue is located in among those in the directory tree, and click [Create] in the [Object] menu.
- In the [Class of new object] box, click “Print Queue” to highlight it, and click [OK].
- In the [Print Queue name] box, enter the name of the print queue.
- In the [Print Queue Volume] box, click Browse button.
- In the [Available objects] box, click the volume in which the print queue is created to highlight it, and click [OK].
- After confirming the settings, click [Create].

12 Create a printer as follows.

- Select the container object the printer is located in, and click [Create] in the [Object] menu.
- In the [Class of new object] box, click “Printer” to highlight it, and click [OK].

When you are using the NetWare 5, click “Printer (Non NDPS)”.

- In the [Printer name] box, enter the name of the printer.
- Click [Define additional properties] to place mark, and click [Create].

13 Assign print queues to the created printer as follows.

- Click [Assignments], and click [Add] in the [Assignments] group.
- In the [Available objects] box, click the queue created in the step 11 to high-light it, and click [OK].
- Click [Configuration], and in the [Printer type] box, select [Parallel] using the drop-down menu, and then click [Communication].
- Click [Manual load] in the [Communication type] group, and click [OK].
- After confirming the settings, click [OK].

14 Create a print server as follows.

- Select the context specified using the NIC Setup Tool, and in the [Object] menu, click [Create].
- In the [Class of new object] box, click “Print Server” to highlight it, and click [OK]. When you are using the NetWare 5, click “Print Sever (Non NDPS)”.
- In the [Print Server name] box, enter the name of the print server.
- Use the same name as that specified using the NIC Setup Tool.
- Click [Define additional properties] to place ' mark, and click [Create].

15 Assign the printer to the created print server as follows.

- Click [Assignments], and click [Add] in the [Assignments] group.
- In the [Available objects] box, click the queue created in the step 12 to high-light it, and click [OK].
- In the [Printers] group, click the printer assigned and to high-light it, and click [Printer Number].
- Enter the printer number and click [OK].
- Use the same number as that specified as Remote Printer No. using the NIC Setup Tool.
- After confirming the settings, click [OK].

16 Start the print server by inputting as follows from the console of the NetWare Server.

- If it is running, restart it after exiting it.
  To exit CAREE: unload pserver
  To start CAREE: load pserver print_server_name

Setting Up a Client Computer

This section describes how to set up a client computer when you use a NetWare print server. This section assumes that the client has NetWare client applications installed and is correctly configured to communicate with a NetWare print server. If not, install the necessary applications before starting the setting up procedure.

Windows 95/98

Follow these steps to set up a Windows 95/98 client.

- Log in to the NetWare file server before starting the following procedure.

1 Install the printer driver of the printer you want to use as “Local printer”.

- For more information on installing the printer driver, refer to the Operator Guide for your printer.
- Any port is selected during the installation, however, LPT1 is recommended.

2 Click [Start], point to [Settings], and then click [Printers].

3 In the [Printers] window, select the icon of the printer you want to use by clicking it.

4 On the [File] menu, click [Properties].

5 Click [Details] tab, and click [Add Port].

6 Click [Network] and click [Browse].

7 On the network tree, double-click the name of the computer used as the print server.

- The names of the printers attached to the network are displayed.

8 Click the queue you want to print to highlight it, and click [OK].

9 Click [OK].

- In the [Print to the following port] box, a network path to the printer appears.

10 Click [OK] to close the printer's property, and again, open it.

11 Click the [Printer Settings] tab.

12 Remove the ' marks from the [Form feed] and the [Enable banner] check boxes.

- You should not check these boxes, since they should be specified using the printer driver. If they are checked, the printer might not print correctly.

When Using the PostScript Printer Driver

Follow these steps to set up for the PostScript Printer Driver

- Click the [PostScript] tab.
- Click [Advanced].
- Remove the ' marks from the [Send CTRL+D before job] and the [Send CTRL+D after job] check boxes.

13 Click [OK] to close the property.

Windows 3.1x

Follow these steps to set up a Windows 3.1x client.

1 Install the printer driver of the printer you want to use as “Local printer”.

- For more information on installing the printer driver, refer to the Operator Guide for your printer.

2 Double-click the [Printers] icon of [Control Panel].

3 In the [Installed Printers] box, select the printer driver you want to use by clicking it, and then, click [Connect].

4 In the [Ports] box, click [LPT1] to highlight it, and click [Network].

- The Network driver dialog appears.

5 In the [Ports] box, click [LPT1] to highlight it, and in the [Resources] box, click the queue you want to print to highlight it.

- You should log in to the print server in order to see the print queues.

6 Click [Capture].

- The specified queue is captured to the LPT1.

7 Click [LPT Settings].

- The [NetWare Settings] dialog appears.

8 Remove the × marks from the [Form feed] and the [Enable banner] check boxes.

- You should not check these boxes, since they should be specified using the printer driver. If they are checked, the printer might not print correctly.

9 Click [OK] to close the [NetWare Settings] dialog.

10 Close the Network driver.

11 Click [OK] to close the [Connect] dialog.

12 Click [Close] to close the [Printers] dialog.

Notes:

Chapter 5

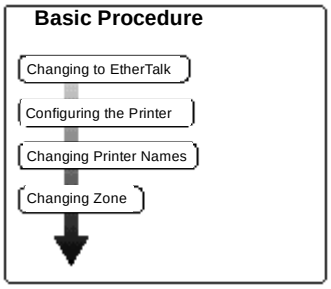
Macintosh Configuration

Chapter Overview

This chapter covers:

Configuring Macintosh

This chapter explains how to configure a network printer in a Macintosh EtherTalk environment. The actual procedures to configure a network printer are slightly different depending on the version of the Mac OS. This chapter describes how to configure your printer for Mac OS 8. If you are using a different version, refer to the manual that comes with your version of the Mac OS for more information.



Note: To print from a Macintosh, the optional PostScript 3 is required.

Changing to EtherTalk

Follow these steps to configure a Macintosh computer to use EtherTalk.

1 Open [Control Panels], and double-click the [AppleTalk] icon.

2 Select “Ethernet” from the [Connect via] pop-up menu.

3 If you change zones, select a name from the [zone] pop-up menu.

4 Close the [AppleTalk] control panels.

5 Restart the Macintosh.

Configuring the Printer

Use the operation panel to activate the EtherTalk protocol (factory default is active).

Changing Printer Name

If the network has several same model printers, the names will be the same.

Printers that have the same name will have their names changed slightly in the Chooser. For example, three printers named “printer” will appear in the chooser as “printer0”, “printer1” and “printer2”.

Use applications such as Apple Printer Utility or LaserWriter Utility to change printer names in the Macintosh EtherTalk environment. These utilities are distributed by Apple Computer, Inc.

Changing Zone

It may be necessary to change the zone configuration. Use applications such as Apple Printer Utility or LaserWriter Utility to change the zone configuration in the Macintosh EtherTalk environment. These utilities are distributed by Apple Computer, Inc.

- If your Macintosh is configured to use TCP/IP, you can change the zone configuration with a Web browser.

Follow these steps to use the Apple Printer Utility.

- Insert the CD-ROM that comes with the printer into your computer's CD-ROM drive.
- Copy the “Zone Name.ps” file in the “Zone Name” folder to the hard disk.
- Open the copied “Zone Name ps” file using a text editor, and change the “NewZone”, which is in the second line from the bottom, to the name of the new zone.

```
%!PS-Adobe2.0%
Title: Changing Zone (EtherNet only)
%%CreationDate: Tue Dec 16 1997
%%EndComments
true 0 startjob not {ERROR}if
(%EtherTalk%) << /EtherTalkZone (NewZone) >> setdevparams
%%EOF
```

- Save the “Zone Name.ps”.
- Run the Apple Printer Utility, and select the printer for which the new zone name is to be used.
- Select the [Send PostScript File] in the [Utilities] menu, and send the “Zone Name.ps” to the printer.

Chapter 6

Additional Functions

Chapter Overview

This Chapter covers:

Multi Direct Print

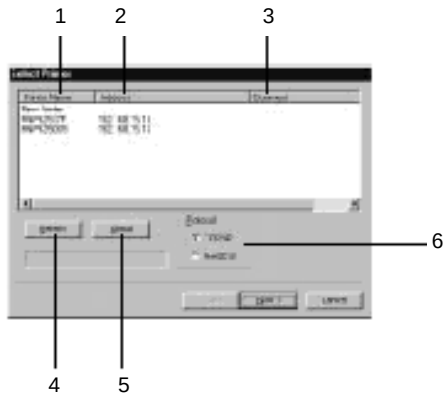
Multi Direct Print is a Windows program that allows you to print on a Peer-to-Peer network. This program allows you to print directly to a network printer, even if there is no print server.

OS	Protocol Stack
Microsoft Windows 95/98	The Microsoft version of TCP/IP that comes with Windows. The Microsoft version of NetBEUI that comes with Windows.
Microsoft Windows NT 4.0	

Note: If your printer is in the middle of warming up or printing, an error message might appear a certain time after you request a print job. You can change how long the printer should wait to display the message by clicking [Port Settings] in the [Details] tab on Windows 95/98, and [Configure Port] in the [Ports] tab on Windows NT4.0.

Select Printer

A list of available printers appears on this screen.



1. Printer Name

The contents of this list are different for TCP/IP and NetBEUI protocols. If you selected [TCP/IP], the printer name of the Network Interface Card appeared. If you selected [NetBEUI], the computer name of the Network Interface Card appeared.

Note: The printer name can be found on the printer configuration page.

Note: The printer name is set to “RNP” and the last 6 digits of the MAC address of the Network Interface Card. For example, a board with a MAC address of 00:00:74:62:5C:65, would be named RNP625C65. You can change this name to something more convenient.

2. Address

The contents of this list are different for TCP/IP and NetBEUI protocols. If you selected [TCP/IP], the printer name of the Network Interface Card appeared. If you selected [NetBEUI], the computer name of the Network Interface Card appeared.

Note: The form of the Network path name is “%% computer name \ name of printer type”.

3. Comments

Comments that are registered on the Network Interface Card.

4. [Refresh]

Click to refresh the contents of the display. When refreshing, the name of this button changes to [Stop]. Click on it to stop the refresh.

5. [About]

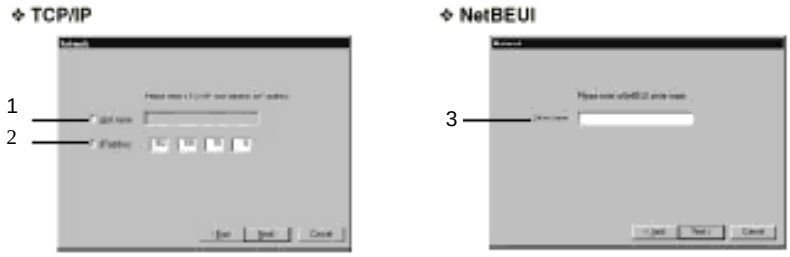
Version and copyright information.

6. Protocol

Select to display the printers which can print using the selected protocol.

Network

When you select a printer with the [Select Printer] dialog, the Port name is entered automatically.



1. Host name

   If you print, using the TCP/IP protocol, to select a printer using a host name or a domain name, enter the name here. In-put the IP address into the [IP address] box when selecting a printer by IP ad-dress.

   You cannot use a host name that begins with “%%”.

   Note: When you use DHCP to assign IP ad-dresses to Network Interface Cards, you can use a printer name (Current Host name on the network configuration page) as the host name.

2. IP address

   If you print, using the TCP/IP protocol. Enter the IP address of the printer.

3. Printer name

   Enter the printer's Network path name in form of “%%Computer name \Share name”. Do not enter “\\” as head characters but “%%”.

Configuring NIC with Web Browser

The Network Interface Card functions as a Web server in addition to allowing a printer to function as a network printer. You can use a Web browser to view the printer status and configure the Network Interface Card.

Configuring the Printer

This facility requires TCP/IP to be installed. After the printer has been configured to use the TCP/IP protocol, it will be possible to adjust the settings using a web browser.

Operating System Browser Requirements

OS	Browser
Miscrosoft Windows 95/98	Microsoft Internet Explorer 3.03/4.0 Nescape Navigator 3.0/4.0
Microsoft Windows NT 3.51/4.0	
Mac OS 7.6.1-8.1	
Solaris 2.5 - 2.6	

- Using Windows NT 3.51 with Internet Explorer 3.02 may cause problems.
- Sometimes after clicking [Back], the previous page may not appear. In this case, click [Refresh] or [Reload].
- The text on the screen may disappear or be aligned incorrectly if the font size settings of the browser are set to be too large. It is recommended that you use a font size equal to or smaller than “10 point” with Netscape Navigator, and “Medium” or smaller with Internet Explorer.

Going to the Top Page

After launching your Web browser, enter the IP address of the printer. See the example below. This example is for the English version. http://192.168.15.16/

(In this example. the IP address of the Network Interface Card is 192.168.15.16.)

Note: If a DNS server is used in the network, you can enter the host name as an URL. For example, http://webmonitor.netprinter.com/. In order to do this, you must the register the IP address and host name of the Network Interface Card with the DNS server. Consult the network administrator for information on how to do this.

Note: If the network uses proxy servers, the browser may run slowly.

1. Header Button

You can register favorite URLs with [URL]. To view the help section, click [Help].

Important: It costs to use the browser to access a website.

- The help file is stored on the CD-ROM in HTML format.

2. Menu Button

Buttons to configure the Network Interface Card and confirm the status of the printer.

- When you click [Network Config], a dialog appears requesting the user name and password. Enter only the password in this dialog. The factory default password is “password”.
- The password is the same as that used in the remote maintenance (mshell) and that used in the NIC Setup Tool. If you change a password on the Web browser, the other passwords are also changed.

3. Representation Area

Displays the name and comments of the Network Interface Card, and the status of the printer.

Linking the address (URL) to the [Help] button

You can link the address (URL) of the [Help] button to the help files on your computer or on a Web server.

- Copy the help file on the CD-ROM to the desired location. The help files are located in folders labeled with abbreviated language names. For example, English help files are in the "EN" folder. Be sure to copy the entire “EN” folder to the new location.
- Using a web browser, navigate to the Top Page and click [Network config].
- Enter your password, (it is not necessary to enter a user name) and click [OK].
- Enter the path to the help file in the [Help URL] box. If you copied the help file to "C:\HELP\EN" then enter "file://C:/HELP/". For example if you copied the file to a web server and the address (URL) that will be linked to the help files is "http://a.b.c.d/HELP/EN/index.html", enter "http://a.b.c.d/HELP/".
- Click [Apply].
  When a warning message appears, select to continue configuring this procedure.

Assigning IP Address with ARP+PING

Using TCP/IP, you can assign the IP address using ARP and PING. The following example is for a BSD UNIX workstation (SunOS 4.x).

ARP+PING should be set to active in the network boot configuration before assigning the IP address using ARP+PING. For how to set it to active, refer to the Operating Instructions for your printer.

1 Log in to the workstation as root.

2 Use the arp command to assign the IP address to the MAC address of the Network Interface Card.

- # arp -s 192.168.15.16 00:00:74:62:5C:65
- 192.168.15.16 is the IP address, 00:00:74:62:5C:65 is the MAC address.

3 Assign the IP address using the PING command.

- # ping 192.168.15.16

4 Use the PING command again, to confirm the address.

- # ping 192.168.15.16

If the address has been configured correctly, the following message appears.

- 192.168.15.16 is alive

If the address has been configured incorrectly, the following message appears.

- no answer from 192.168.15.16

How to Confirm the MAC Address

The MAC address (Ethernet address) of the Network Interface Card is required in order to use ARP and PING to assign the IP address. The MAC address can be seen on the printer configuration page.

Remote Maintenance by Telnet (mshell)

You can view the printer status and configure the Network Interface Card using telnet. You should specify a password so that only the network administrator, or a person having network administrator privileges, can use remote maintenance (mshell).

Operation Flow

The following is a sample procedure in using Telnet.

Limitation
Only one person at a time can be logged on to do remote maintenance.

1 Using the IP address or host name of the printer, start telnet.

- % telnet IP_address
- In order to use the host name instead of the IP address, you must write it to the /etc/hosts file.

2 Enter the password.

- The factory default is “password”.

3 Enter a command.

4 Finish telnet.

- msh> logout
  When the configuration is revised, a confirmation message requests whether or not the changes should be saved.

5 Enter “yes” to save the changes, and press {Enter}.

- If you do not want to save the changes, enter “no” and press {Enter}. If you want to make additional changes, enter “return” at the command line, and press {Enter}.
- If the “Can not write NVRAM information” message appears, the changes are not saved. Repeat the steps above.
- The Network Interface Card is reset automatically when the settings are changed.
- When the Network Interface Card is reset, the active print job which has already been sent to the printer, will finish printing. However, jobs that have not been sent yet will be cancelled.

Command List

This is a list of commands that can be used by means of remote maintenance.

Note: Enter “help”, to see a list of commands that can be used. msh> help

Note: Enter “help command_name”, to display information on the syntax of that command. msh> help command_name

TCP/IP Address

Use the ifconfig command to configure TCP/IP (IP address, subnet mask, broadcast address, default gateway address).

Reference

msh> ifconfig

Configuration

msh> ifconfig le0 parameter address

Parameter	Configuration Item
no parameter	IP address
netmask	aubnet mask
gateway	default gateway address

The following is an example for configuring an IP address of 192.168.15.16.
msh> ifconfig le0 192.168.15.16

The following is an example for configuring a subnet mask of 255.255.255.0.
msh> ifconfig le0 netmask 255.255.255.0

- This affects the configuration of the Network Board of the IP address that is used.
- To enter an address using hexadecimal, add “0x” to the first command.

Subnet Mask

A number used to mathematically “mask” or hide the IP address on the network by eliminating those parts of the address that are alike for all the machines on the network.

Default Gateway Address

A gateway is a connection or interchange point that connects two networks. A gateway address is for the router or host computer used as a gateway.

- To get the above addresses, contact your network administrator.

Access Control

Use the access command to view and configure access control.

Reference

msh> access

Configuration

msh> access parameter address

Parameter	Configuration Method
control	Access Control Address
mask	Access Control Mask

Notes:

- The Access Control Address and the Access Control Mask are used to limit access to the computer used for printing by denying access to users based on their IP address. If it is not necessary to limit access, set the Access Control Mask to “0.0.0.0”.
- When the Access Control Address matches masked result of the IP address computer attempting to print, print jobs from that IP address can be accepted by the Network Interface Card.
- For example, if you assign 192.168.15.16 as the Access Control Address to the Network Interface Card, the combination of the Access Control Mask and the IP addresses that can print are as follows. The XXX is a variable that means any number from 1 to 255 is acceptable.

Access Control Mask	IP Addresses that can Access the Printer
255. 0. 0. 0	192.XXX.XXX.XXX
255.255. 0. 0	192.168.XXX.XXX
255.255.255. 0	196.196. 15.XXX
255.255.255.255	192.168. 15. 16

Network Boot

Use the set command to configure a network boot.

msh> set parameter {on | off}

“On” means active and “Off” means inactive.

Parameter	Configuration Method
ping	ARP + PING
tftp	RARP + TFTP
bootp	BOOTP
dhcp	DHCP

- When you use RARP+TFTP, BOOTP, DHCP, the server also needs to be configured.
- DHCP takes precedence over all other settings.on | off}

Protocol

Use the set command to allow/prevent remote access for each protocol.

msh> set protocol {up | down}

Protocol	Description
appletalk	UP means active and Down means inactive.
tcpip	
netware	
netbeui	
lpr	
ftp	
rsh	
diprint	
web	

Notes:

- If you prohibit remote access using TCP/IP and then logout, you cannot use remote access. If this was a mistake, you can use the printer operation panel to allow access by TCP/IP.
- When you prevent access via TCP/IP, you are also prevented from using lpr, ftp, rsh, diprint, and web.

Status of Printer

The following commands can be used to get information about the current status of the printer.

msh> command

Command	Information that is Displayed
status	Status of printer. Information about the print job.
info	Information about the paper tray, output tray, emulation and program of printer.
prnlog (ID)	Lists the last 10 print jobs
netstat	Information on NIC

Note:

- More information on the print job is displayed when the ID number is added after the prnlog command.

Information about the Network Interface Card Configuration Settings

Use the show command to display the Network Interface Card configuration settings.

msh> show [-p]

Note:

- Add “-p” to the show command to have the information displayed one screen at a time.

System Log Information

Use the syslog command to display information stored in the printer's system log.

Note: msh> syslog

SNMP

Use the snmp command to display and edit SNMP configuration settings such as the community name.

Note:

- You can configure from No. 1 to 10 SNMP settings.
- The factory default settings for No. 1 and 2 are as follows.

Number	1	2
community name	public	admin
IP address	0.0.0.0	0.0.0.0
access type	read-only trap off	read-write trap off

Display

Shows the SNMP information and available protocols.

msh> snmp ?

msh> snmp [-p] [registered_number]

Notes:

- If the -p option is added, you can view the displays one by one.
- If the registered number is not added, you can view the status of all the registered numbers.

Community Name Configuration

You can set the community name of the Network Interface Card.

msh> snmp number name community_name

Note

- The community name must consist of 15 characters or less.

Access Type Configuration

You can select the access type from those listed below.

msh> snmp number type access_type

Access Type	Type of Access which is Permitted
read	Read only access is permitted
write	Read and write access is permitted
trap	User is notified of trap message
no	All access is denied

Protocol configuration

You should use the following command to set the protocols to active or inactive. If you set a protocol to inactive, you cannot use all the registered numbers for it.

msh> snmp {ip | ipx} {on | off}

- "On" means active and "Off" means inactive

If you want to change the protocol settings for each registered number, use the following command. Make sure that the protocol set to inactive using the above command, cannot set to be active using this command.

msh> snmp number active {ip | ipx} {on | off}

Access Configuration

You can configure an address of a host depending on the protocols used. The Network Interface Card accepts requests only from hosts having ad-dresses with access types of "read-only" or "read-write". Enter "0" to have the Network Interface Card accept requests from any host without requiring a specific type of access.

The following example shows how set the protocol for an address.

msh> snmp number {ip | ipx} address

Note

- When using the TCP/IP protocol, enter ip followed by a space and then the IP address.
- When using the IPX/SPX protocol, enter ipx followed by a space and then the IPX address followed by a decimal and then the MAC address of the Network Interface Card.

The following is an example of how to configure registration number 3 with the IP address 192.168.15.16.

```
msh> snmp 3 ip 192.168.15.16
```

The following is an example of how to configure registration number 3 with the IPX address 7390A448, and the MAC address 00:00:74:62:5C:65.

```
msh> snmp 3 ipx 7390A448.000074625C65
```

Changing the Password

Use the passwd command to change the remote maintenance password.

- Be sure not to forget or lose the password.
- The default factory password is “password”.

1 Enter “passwd”.

- msh> passwd

2 Enter the current password.

- Old password:

3 Enter the new password.

- New password:

  Note: The password must consist of 3 to 8 alphanumeric characters and symbols. Upper and lower case characters are considered unique. For example, R is different from r.

  The password is the same as that used in the configuration of the Network Interface Card using a Web browser and that used in the NIC Setup Tool. If you change a password on the mshell, the other passwords are also changed.

4 Enter the new password once again.

- Retype new password.

SNMP

The Network Interface Card functions as a SNMP (Simple Network Management Protocol) agent using the UDP and IPX protocols.

Using the SNMP manager you can get information about the printer. The factory default community names are “public” and “admin”. You can get MIB information using these community names.

Limitation

The kinds of supported MIBs differ depending on your printer.

Supported MIBs

- MIB-II
- PrinterMIB
- HostResourceMIB
- LanierPrivateMIB-Bold

Understanding Displayed Information

This section describes how to read the displayed information on the status of the Network Interface Card.

Print Job Information

The status of the print job can be viewed using the following commands.

mshell

Item Name	Description
ID	Number of the print request.
Source	Name of the host requesting the print job.
Process	Type of print command.
Status	Status of print job. Active: Printing of being prepared for printing. Waiting: Waiting to be transferred to the printer.
Time	The time when the print request was received.

Print Log Information

This is a record of jobs that have been printed up to now. The most recent ten records are displayed. This record can be displayed with the following commands.

mshell

Item Name	Description
ID	Number of the print request.
Source	Name of the host requesting the print job.
Process	Type of print command.
Bytes	Size of the file in bytes.
Result	Communication results. OK: Indicates the print job was completed correctly. NG: Indicates the print job was not completed normally. Canceled: rcp, rsf, or lrp print commands were stopped. A problem occurred with the printing application. This message does not appear when ftp or PRINTER is used.
Time	The time when the print request was received.
User	The user name, workstation name, or address of the host that sent the print job.
Address	IP address
Process	Type of print command used.
Print Start Time	Time of print process was started.
Print End Time	Time print process was completed.
Open Count	Number of print process that the application made.
Eof Count	Reception number of files unit.
Data Size	Number of bytes of received data.

Network Statistical Information

This section is about the information provided about the Network Interface Card. Detailed information about the words used to describe the status of the Network Interface Card are described below.

mshell

Item Name	Description
System elapsed time	Time that passed since the NIC started.
Total Printing Time	Total time spent in processing the print data.
Total Open Count	Total open (printing process) count that application required.
Current Connection Count	Number of print jobs connecting with the NIC.
Total Connection Count	Total number of print jobs sent to the NIC.
Print Error Count	Number of times the printing process sent an error message
Access Error Count	Number of times the connection was refused because of the value of the access control.
Print Request Full Count	Number of times a connection was refused because the number of print requests exceeded the number of allowed sessions.

Configuring Network Interface Card

Network Interface Card settings can be displayed and confirmed using the commands below.

mshell

Item Name	Description
Common	
Mode	
Protocol Up/Down	Up means active, Down means inactive.
AppleTalk	
TCP/IP	
NetWare	
NetBEUI	
NVRAM version	Internal version number
Device name	
Comment	
Location	
Contact	
Soft switch	
AppleTalk	
Mode	AppleTalk protocol in selection
Net	Network number
Object	Macintosh printer name
Type	Type of printer
Zone	Name of the zone that the printer belongs to.

Item Name	Description
TCP/IP	
Mode	Up means active, Down means inactive
ftp	
lpr	
rsh	
diprint	
web	
telnet	
download	
EncapType	Frame type
Network boot	Network boot
Filter	Internal parameter
Max DSTs	
Address	IP address
Netmask	Subnet mask
Broadcast	Broadcast address
Gateway	Default gateway address
AccessCtrl	Access control address
AccessMask	Access control mask
Time server	
Home page URL	URL of homepage
Home page link name	URL of help page
SNMP	Protocol used with SNMP
NetWare	
Mode	(This value is fixed)
Encap Type	Frame type.
RPRINTER number	Remote printer number.
RPRINTER name	Remote printer name
Print server name	Print server name
File server name	Name of the connect file server
Context name	Context of print server
Switch	
Mode	Active mode
NDS/Bindery	(This vale is fixed)
Packet negotiation	
Print timeout	Time of the job timeout.
NetBEUI	
Mode	(This value is fixed)
Switch	
Mode	(This value is fixed)
Direct print	(This value is fixed)
Notification	Notices of finishing to print.
Workgroup name	Name of the workgroup.
Computer name	Name of the computer
Comment	Comment.
Share name 1	Share name. (name of the printer type.
Shell mode	Mode of remote maintenance tool.

Message List

This is a list of messages recorded to the printer's system log. The system log can be viewed using the syslog command.

System Log Information

You can use the following methods to view the system log.

mshell

Network Configuration Page: Configure PCL for the Printer Language, and push the switch on the Network Interface Card for five seconds.

Message when Network Interface Card Starts or Restarts

Item Name	Description
LANIER Network Interface Card ver.x.x.x	Version number of the NIC
PRINTER SYSTEM "System Name" ver.x.x.x	System name and version of the printer
Attach FileServer = "file server name"	Printer is attached to "file server name" as the nearest server
Current Interface Speed:xxxMbps	Speed of the network (10Mbps or 100 Mbps)
Current IPX address	Current IPX address
FrameType = "frame type name"	Frame type name is configured to be used on NetWare.
NetBEUI Computer Name = "compter name"	NetBEUI Computer Name is defined as computer name.
Start httpd	Web server has been started.
Start npmpd for IPX	npmpd for IPX protocol has be started.
Start npmpd for TCP/IP	npmpd for TCP/IP protocol has be started.
Start smpd direct print mode (NetBEUI)	You can print from a client on the Windows network via the print server.
Start snmpd Ver 2.0	SNMP agent of the displayed version has been started.
Vendor = , Country = , Lang =	Vendor, country code, and language.

Netware - When the Networking Interface Board is Started

When Working as a Print Server

Item Name	Description
Access to NetWare server File server name denied. Either there is no account for this print server on the NetWare server or the password was incorrect.	Cannot log in to the file server. Confirm that the print server is registered on the file server. If a password is specified for the print server, delete it.
Attach to print queue print queue name.	Attach to the print queue.
File server is empty	The file server is not registered. Register your file server using the utility.
Login to file server “file server name” (NDS/BINDERY)	Logged in to the file server with NDS or BINDERY mode.
Open log file “file name”	Specified log file has been opened.
Printer: printer name” has no queue	The print queue is not assigned to the printer. Using NWAdmin, assign the print queues to the printer and then restart it.
Print queue “print queue name” cannot be serviced by printer 0, “print server name”	Print services are not available for the print queue. Confirm the volume of the print queue exists on the specified file server.
The print server received error “error number” during attempt to log in to the network. Access to the network was denied. Verify that the printer server name and password are correct.	Cannot log in to the file server. The print server is not registered or the password is specified. Register the print server with out specifying a password.

When Working as a Remote Printer

Item Name	Description
Cannot create service connection	Cannot establish a connection with the file server. Your request may exceed the maximum number of connections that the file server can deal with at a time.
Cannot find rprinter (“print server name”/”printer number”)	Printer having the number of displayed on the print server does not exist. Confirm the number of the printer register to the print server.
Establish a connection with the printer server, “print server name”.	Connection with the printer server has been established.

Item Name	Description
No local target for “print server name”	Cannot get routing information on the file server. If a different frame type is configured from that used on the network, you should select “Auto Select” as a name type.
Required file server “file server name” not found.	Cannot find the required file server.‘
Required printer server “printer server name” cannot be found.	Cannot find the printer server. COnfirm the name of the print server.
Unable to attach to print server “print server name”	Cannot connect to the print server. The print server refuses a connection for some reason. Confirm the configuration of the print server.

NetBEUI When the Network Interface Card is Started

Item Name	Description
Back to default name (computer name)	The same computer name is detected on the network. As unable to add computer name to the suffix, computer name back to default name. Configure a new computer name that is unique.
Print session full	Cannot accept the print session.
Required computer name (COmputer name) is a duplicated name	The same computer name is detected on the network. The start job determines the computer name by adding the computer name to the suffix (0,1,...) Configure a new computer name that unique.

TCP/IP

When the Address is Configured

Item Name	Description
Invalid gateway address	The Gateway address is not correct for the specified IP address.

When Using LPR

Item Name	Description
filter data error	Some data cannot be handled by the filter option. COnfirm the file code and the settings of the filter option.
lost connection	The connection was cut by a counterpart. Check the printer to which you request to print.
print request full	Cannot accept the print request (max 5 session). Confirm the status of the printer with mshell, and print it again after the print request becomes less than 5 sessions.
printer permission denied	Cannot get a permission to use the printer. Confirm the access rights with the access control address and the access control mask.
printer refuse	Something is wrong with your printer. Confirm the status of the printer.

When Using SNMP

Item Name	Description
Exit snmpd	The agent is complete. Reset the printer or turn the printer off and on.
recvfrom: packet discarded, length (reception packet length) > (Packet size), from addr <Address of partner point>	The received packet was ignored since the length of the packet exceeds the limit. Confirm whether the administrator station sent a packet whose length is longer than 1025 bytes.
session <Community name appointed> Name> from <Address>	The community name of the received packet is not defined. Confirm that the community name of the administration station is the same as that specified to the printer.
snmpin: Bad use of session <community Name> from <Address>	The community name of the received packet is not the same as that of the administration station. Confirm the community name specified to the printer.
snmpin: error in snmpdecipher, code (<ErrorNo.>)	An error occurred on the received packet. Check if the number of the objects sent from the administration station ism ore than 31 and if there are wrong MIB requests.
snmpin: error in snmpservsend, code (<ErrorNo.>)	Cannot send a response packet. Normally this message is followed by other messages.
snmpin:pkt too large,code (<Error number>)	The response packet to the request is too big to send. Reduce the number of the objects per request.
snmpin: error in sending too large request back,code (<Error number>),giving up	The packet notifying the error is too big to send. Reduce the number of the objects per request.
snmpin:received bad version	The version of the received packet is invalid. Confirm that the version of the administration station is the version - 1(0).

Precautions

Connecting a Dial Up Router to a Network

Correspondence Method on Network Administration

Filter the packets so that they do not pass over the dial up router.

- The MAC address of the printer doing the filtering is printed on the printer configuration page. Refer to the Operating Instructions for information on printing a configuration page.
- See the instructions below for information on configuring the printer if the router cannot be configured.

Correspondence Method by Configuration of Printer (when using NetWare)

1 Following the setup method in this manual, configure the file server.

2 Set the frame type for a NetWare environment.

Correspondence Method by Configuration of Printer (when not using NetWare)

1 While not printing, the Network Interface Card sends packets on the net-work. Set the NetWare to inactive.

When Printing PostScript from Windows

When printing PostScript from Windows, refer to the Operating Instructions that comes with the optional PostScript 3, and configure using the Network Interface Card with your printer driver.

When Printing with Netware

Configuration of Form Feed

When using NetWare, it is not necessary to configure for form feed. However, should not want to perform form feed, configure according to OS as follows.

- In case of Windows 3.1x, remove a check of [Form feed] in [Network Settings] dialog.
- In case of Windows95/98, you remove a check of [Form feed] with [Printer Settings] tab of property of printer.

Configuration of Banner Page

Please do not configure of banner page on NetWare. If you do not want to add the banner page, configure according to OS using it as follows.

- In case of Windows 3.1x, remove a check of [Enable banner] in [Network Settings] dialog.

- In case of Windows95/98, remove a check of [Enable banner] with [Printer Settings] tab of property of printer.

Printing after Resetting the Printer

After resetting the remote printer, the printer will be cut off from the print server for about 30-40 seconds before connecting again. Due to NetWare specification, print jobs may be accepted, but they will not be printed during this time. When using the printer as a remote printer, wait about two minutes after resetting the printer before attempting to print.

When Using DHCP

The following points are important when using DHCP (Dynamic Host Configuration Protocol).

Supported Systems

Windows NT Server 4.0 can be configured as a DHCP server.

Give the Printer a Static Address

Configure the DHCP server so the printer has a static address.

- When multiple DHCP servers exist, turn an equal reservation into all DHCP server. A Network Interface Card works by information from DHCP server replied to in the first place.

Follow these steps to provide the printer with a static IP address.

1. Start the DHCP manager.
2. Select the scope that will be used, and on the [Scope] menu, click [Reservation].
3. Enter the IP address into [IP Address].
4. Enter the MAC address of the Network Interface Card into [Unique Identifier].
   - Do not use hyphens to separate the numbers.
   - If you don't know the MAC address, it can be found on the “configuration page” printed by the printer.
5. Enter a name and comment into the [Client Name] and [Client Comment] boxes.
6. Click [Add].
   - An IP address is reserved.
7. Click [Close], to close dialog.

The Others

- When you click [Active Lease] on the [Scope] menu of DHCP manager, a list of client leases appears. When the reserved IP address is not assigned to a Network Interface Board, a client name of this dialog appears as the name that was enter into with [Add Reserved Clients] dialog. When the reserved IP address is assigned to a Network Interface Card and comes to use it, an appearing client name changes in a printer name configured by Network Interface Card. However, only 13 characters appear here from the beginning of printer name.

- When IP address is not assigned by the DHCP server, the Network Interface Card uses 11.22.33.44 as temporary IP address. You can confirm the printer's IP address on the network configuration page.
- Because 11.22.33.44 is a special IP address, you cannot print using this address.

When Using the NIC Setup Tool

If the Network Interface Card is not browsed using the TCP/IP protocol, check to see if the TCP/IP environment is correctly configured in your computer.

Network Configuration Page

You can confirm the network information on the network configuration page.

1 Confirm that the printer is online.

2 Push the switch on the Network Interface Card for two seconds, and release it.

- The network configuration page is printed.

If you push the switch for five seconds, the system log information is printed.

Item	Description	Item
Node Number Soft Switch Printer Name	00:00:74:62:5c:65 0x41dc NET_PRINTER	1 2
TCP/IP (Up) IP Address Netmask Gateway AccessCtrl AccessMask Auto IP (NBoot) Mode EncapType Current Hostname Current IP Address Current Netmask Current Gateway	 192.168.015.016 255.255.255.000 000.000.000.000 000.000.000.000. (0x00000000) 000.000.000.000. (0x00000000) DHCP 0x40 0x01 DIX Ethernet II NET_PRINTER 192.168.015.018 255.255.255.000 000.000.000.000	3
NetWare (Up) IPX Address EncapType RPRINTER number Print Server Name File Server Name Mode	 7390A448:000074625C65 Auto 0 PSERV.NETWORK.DS FAREE Print Server	4
NetBEUI (Up) Switch Workgroup Name Computer Name Share Name Current Path Name	 0x66 WORKGROUP NET_PRINTER IPSio_NX700 \\NET_PRINTER\IPSio_NX700	5
AppleTalk (Up) Mode Net Object Type Zone	 EtherTalk phase 2 0x3f7a IPSio NX700 LaserWriter *	6

1. MAC address

2. Printer name

3. TCP/IP

    - IP address
    - Subnet mask
    - Default gateway address
    - Access control address
    - Access control mask
    - Network boot
    - (Command boot)
    - Frame type
    - *: The current configuration is displayed
    - in DHCP active.

4. NetWare

    - IPX address
    - Frame type
    - Remote printer number
    - Print server name
    - Name of the connect file server
    - Active mode

5. NetBEUI

    - (this value is fixed)
    - Workgroup name
    - Computer name
    - Share name
    - Network path name

6. AppleTalk

    - Network number
    - Macintosh printer name
    - The type of printer
    - Name of the zone that printer belong

Notes:

Chapter 7

Specifications

Chapter Overview

This chapter covers:

Agency Certifications

FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

WARNING:
CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

CAUTION
When installed in a 100BaseTX environment, properly shielded and grounded cables (STP) and connectors must be used for connections to host computer (and/or peripheral) in order to meet FCC emission limits.

Declaration of Conformity

Product Name: Printer Controller

Model Number: Type 185 E

Responsible Party: Ricoh Corporation

Address: 5 Dedrick Place, West Caldwell, NJ 07006

Telephone number: 973-882-2000

This device complies with part 15 of FCC Rules.

Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canada.

Specifications

Item	Description
LAN Interface	100BASE-TX, 10BASE-T
Frame Type	EthernetII, IEEE802.2, IEEE802.3, SNAP
Protocol	**IPX/SPX** NetWare 3.11, 3.12, 3.2, 4.1, 4.11, 5, IntranetWare **TCP/IP** Windows 95 WIndows 98 Windows NT 4.0 **NetBEUI** Windows 95 Windows 98 Windows NT 4.0 **AppleTalk** Mac OS 7.1 or later
SNMP	MIB-II, PrinterMIB, HostResourceMIB, LanierPrivateMIB

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Chapter Overview

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New Machine Warranty and Limitation of Liability

Warranty — 90 days

Lanier warrants that its equipment and accessories will be free from defective parts and workmanship for a period of ninety (90) days from the date of first installation by Lanier's Authorized Dealer. Customers must notify a Lanier servicing dealer or Lanier of a warranty claim within the warranty period. For a listing of authorized Lanier servicing dealers or to notify Lanier of a warranty claim, write to Lanier Worldwide, Inc., 2300 Parklake Drive, N.E., Atlanta, Georgia 30345-2979.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS AND THOSE ARISING FROM A COURSE OF DEALING OF USAGE OF TRADE. The Express Warranty will not apply to drums, cleaning blades, fuser cleaning felts, toner, developer or paper or to defects of damage incurred in transportation, or due to accident; neglect; misuse such as use of harmful or unapproved supplies; alterations; operator error; power surges; failure to properly install, clean, maintain, or repair; improper operating environment; or failure to provide proper utilities. The Express Warranty also will not apply to used or refurbished Lanier equipment unless Lanier expressly authorizes resale with its original equipment warranty.

Limitation of Liability

Fulfillment of Lanier's warranty obligation shall be the Customer's exclusive remedy and Lanier's and the Lanier Dealer's limit of liability for any breach of warranty or otherwise. In no event will Lanier or Lanier's Dealers be responsible or liable for special, incidental or consequential losses or damages.

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